

15 Dec '02

10/582196

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

**(19) World Intellectual Property Organization
International Bureau**



(43) International Publication Date
23 June 2005 (23.06.2005)

PCT

(10) International Publication Number
WO 2005/056776 A1

(51) International Patent Classification⁷: C12N 1/21

(21) International Application Number: PCT/KR2004/003030

(22) International Filing Date: 23 November 2004 (23.11.2004)

(25) Filing Language: Korean

(26) Publication Language: English

(30) Priority Data:
10-2003-0091398
15 December 2003 (15.12.2003) KR

(71) Applicant (for all designated States except US): CJ CORP. [KR/KR]; 500, Namdaemunno 5 ga, Jung-gu, Seoul 100-095 (KR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): PARK, Young-Hoon [KR/KR]; 111-102 Mujigaedaerim Apt., Gumi-dong, BUNDANG-gu, Seongnam-si, Gyeonggi-do 463-703 (KR). LIM, Sang-Jo [KR/KR]; 103-1602 Dongseong Icha Apt., Jukjeon2-dong, Yongin-si, Gyeonggi-do 449-845 (KR). KIM, Byoung-Hoon [KR/KR]; 205-1205 Samhwan Apt., 2danji, Mansul-dong, Namdong-gu, Incheon 405-741 (KR). KIM, Seong-Jun [KR/KR]; 307-1001 Pungnimsan Apt., 1235, Gwoneon-dong, Gwoneon-gu, Suwon-si, Gyeonggi-do 441-390 (KR). LIM, Ho-Soo [KR/KR]; Deokpyeong 1-2-ri, Majang-myeon, Icheon-si, Gyeonggi-do 467-812 (KR).

(74) Agent: LEE, Duck-Rog; YEIL Patent & Trademark International, YEILPAT Bldg., 669-17 Yorksam-dong, Kangnam-ku, Seoul 135-915 (KR).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH,

(Continued on next page)

(54) Title: E. COLI MUTANT CONTAINING MUTANT GENES RELATED WITH TRYPTOPHAN BIOSYNTHESIS AND PRODUCTION METHOD OF TRYPTOPHAN BY USING THE SAME

(57) Abstract: The present invention relates to a Tryptophan-producing *E. coli* mutant strain CJ285 (KCCM-10534) containing single or multi mutant genes related with Tryptophan biosynthesis and production method of Tryptophan using the same. More particularly, DNA base sequences and amino acid sequences *aroF*, *aroG*, *trpR*, and *tyrR* originated from tryptophan producing *E. coli* mutant strain CJ285 (KCCM-10534) and related with Tryptophan biosynthesis, are disclosed, and *E. coli* CJ285 containing at least one of the mutant genes is cultivated directly in a glucose-containing fermentation medium, whereby L-tryptophan can be accumulated in the culture medium.

WO 2005/056776 A1